



WILDFLOWER NEWS

“Growing Nature’s Garden”

Message from the ENPS President

It won't be long before the prairie crocuses (*Pulsatilla nuttalliana*) are popping up. I look forward to all the sightings and photos that get posted to our Facebook page. Next we'll see the prairie buttercups (*Ranunculus rhomboideus*); sometimes you can even see them coming up just after the snow has melted. The evergreen three-flowered avens (*Geum triflorum*) might follow, depending on how our spring goes. Lots to look forward to!

March was a busy month for ENPS. We participated in three seedy days with hundreds of

people in attendance. We provided lots of advice about gardening with native plants, particularly growing them from our seeds. Welcome to our new members who signed up at these events. We are also working hard at growing seedlings that we will be selling at future sales. Keep checking our website at enps.ca and Facebook group for dates and locations.

Thank you to our dedicated volunteers and everyone who continues to support the Society and our goals.

Kate Spencer, President

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Events

ANPC Seminar: Forging Unexpected Alliances to Save Native Plants

Date: Wednesday, April 17, 12:00 p.m. - 1:30 p.m. Mountain Daylight Time
Location: online with ZOOM

Blake McNeill, co-founder of Alberta Native Plant Rescue, shares some of the innovative salvage projects the group has undertaken to rescue native flowers and grasses from roadways and development sites prior to demolition. He inspires us to reassess some of our relationships with what might have been considered one-time adversaries and discover that we do share some common objectives. Here is the [link to register](#)

2024 ANPC Workshop - Native Plant Superheroes

Date: Saturday, April 20, 2024
Location: Online & in-person

Alberta Native Plant Council invites you to the 34th Annual ANPC Workshop held at Medicine Hat College with an option to participate online. The native plant workshop will include vendors displaying and selling native plant-themed items and a field trip is planned for the following Sunday morning.

More info: [Click here](#)

Snow Goose Festival

Saturday, April 27 & Sunday, April 28, 2024
Location: Tofield, AB

Come celebrate the spring migration of snow geese near Tofield, just southeast of Edmonton. The festival includes guided hikes, bus tours of the countryside, and a free Trade Show with Nature Alberta's Nature Kids craft station, concession, speakers, and a Saturday Banquet.

More info: naturealberta.ca/snow-goose-festival



The new and improved **ENPS** website IS NOW LIVE!

We're still not done, though! More features are in progress and will be added on an ongoing basis, including the new plant index, so be sure to check back often.

Please send compliments, concerns and questions to info@enps.ca

To unsubscribe, or subscribe, email info@enps.ca

Wildflower News editorial board:

Patsy Cotterill, Susan Neuman, Kate Spencer and Melanie Watson

Patsy Cotterill, editor | Melanie Watson, publisher

Reports

Seedy Sale Days

By Kate Spencer

ENPS was among a number of vendors attending the three local seed sales in March. The Sakaw Gardens Third Annual Seedy Saturday took place on March 16th at Sakaw School. The 2024 Edmonton Seedy Sunday on March 24th, held at the Alberta Avenue Community Hall, saw around 1000 people come through the doors. Our last event of the month was the Stony Plain Seedy Saturday on March 30th held at Red Brick Common in Stony Plain. We gave lots of guidance and sold over 250 packages of local native plant seeds to eager gardeners, along with books, brochures and memberships. These events were very successful thanks to our volunteers who cleaned and packaged seeds during the winter and those who helped at our tables.



Edmonton Seedy Sunday 2024-03-24 Photo: K. Mpulubusi.

ENPS on Social Media

By Susan Neuman

Those of you who follow ENPS on Facebook may have noticed a change in our activity recently. While the “Edmonton Native Plant Society Facebook Group” has been in existence since 2010, we have not had our own profile on Facebook ... until now, that is. It’s called “EN PS”, with a nickname of (Edmonton Native Plant Society). This is, essentially, a “dummy profile” that creates posts to put onto our Facebook group, and

directly onto Instagram.

That’s right; we have upped our game on Instagram, where you can follow us at [edmontonnativeplants](https://www.instagram.com/edmontonnativeplants). You will see much the same feed on both platforms, until we can find a dedicated social media volunteer who’s willing to take the time to generate purpose-built content for us. If that’s you, please drop us a line at volunteer@enps.ca

Reports

Protecting Micro-Natural Areas in the Aspen Parkland Biome, presented by Kallum McDonald, MSc

By Susan Neuman

Report on the ANPC Central Alberta Plant Study Group in person seminar, March 27, 2024

The main focus of this presentation was on small natural areas, called “Municipal Reserves” (MRs), within Strathcona County. These are county-owned pieces of land that have been set aside within each rural subdivision as dedicated green spaces. These MRs are “unnamed properties with little signage and are relatively unknown to the public.” Nonetheless, they can be visited by the public, but are lacking in amenities like vehicle parking spaces or even a trail system. Perhaps because they exist “under-the-radar”, so to speak, these “micro-natural areas provide protection to many characteristic species of the aspen parkland biome.” We were shown slides of a selection of these species, most of which were woodland or wetland forbs, such as: ghost-pipe (*Monotropa uniflora*); spotted coralroot (*Corallorhiza maculata*); wild mint (*Mentha canadensis*); common jewelweeds (*Impatiens species*); water smartweed (*Persicaria amphibia*); nodding beggarticks (*Bidens cernua*), plus many more.

Unfortunately, many invasive weeds, such as creeping thistle, Himalayan balsam, yellow toadflax, orange hawkweed, wooly burdock, and purple loosestrife, are also present in these areas. The county is trying to manage these populations, however, so there is some hope that the native plant populations will continue to thrive in these undeveloped natural areas, even given their close vicinity to heavily populated urban spaces.

The presenter also drew our attention to some undeveloped natural areas in the vicinity of Cooking Lake and Hastings Lake. Due to receding lake waters, new natural areas are being formed

along the shorelines, which feature unique waters-edge native species. These shorelines are also an ideal habitat for the majestic native grass

American reed (*Phragmites australis* subsp. *americanus*), which can grow up to 3 metres tall. Unfortunately, a new highly invasive version of this grass, European reed (*Phragmites australis* subsp. *australis*), has recently been spotted along the south shore of Cooking Lake, apparently having made its way from Ontario to the prairies along rail lines. This is extremely problematic as the invasive species readily “displaces shoreline plants” and is “extremely difficult to remove once established.” Hopefully, the county will take measures to control this new threat to native plant populations.

If you’re interested in visiting these relatively unknown natural areas, the easiest way to do that is by looking up the presenter’s observations in iNaturalist. His username is “kallummcdonald”, and the observations are in Strathcona County, south of highway 16. If you wish to see the actual slides from the presentation, you can send an email to editor@enps.ca. Happy plant hunting!



Ghost pipe (*Monotropa uniflora*) in aspen woods in Strathcona County. Photo: K. McDonald.

Reports

Ecosystem Services and Biodiversity Preservation in Prairie Suburban Areas

Presented by Dr. Oscar Zapata and Dr. Ana Hidalgo, University of Saskatchewan

By Susan Neuman

Report on Prairie Conservation Action Plan's online webinar, March 19, 2024

(The research presented was funded by the University of Alberta's "Alberta Land Institute")

This seminar covered the benefits, in terms of human health and well-being, of native pollinator gardens in the urban environment. It also asked the question "How can suburban front yards become ecosystem producers by transforming the lawns into native pollinator gardens?" The most interesting aspect of the presentation (to me) was the "economic experiment" that the authors carried out, in which they determined whether "information about the benefits of native pollinator gardens, and their associated ecosystem services, influenced the participants' willingness to pay." The experiment involved an online survey of university students, where the participants were divided into four treatment groups. The first group was the control group, and they were only shown pictures of urban front yards before and after their lawns were removed and the yards were converted into native pollinator beds. The second group was shown the pictures, plus given economic information about the cost of implementing and maintaining lawns versus native pollinator gardens. (The researchers found that native pollinator gardens are, in fact, cheaper in both respects than lawns.) The third group was given additional information on the environmental benefits of native pollinator gardens, and the final group was also given additional information on the social and health benefits of native pollinator gardens.

Each student in the experiment was given \$10 and asked how much they would be willing to donate

to organizations who work in the area of supporting the adoption of native pollinator gardens. The researchers' hypothesis was that the more information a participant received, the more they would be willing to donate to those organizations. Surprisingly, the results of the experiment did not match this hypothesis.



Image of native pollinator garden from slide presentation. Source: K. Graham.

While most treatment groups were willing to donate about \$5 of the endowment to organizations, the largest average amount to be donated was in the control group (at \$5.64), which was given only pictures, and no additional information. In follow-up questions, the researchers found that students were drawn to the attractiveness of the native pollinator gardens, when compared to lawns. It seemed that the visual effect dominated the other information treatments! The researchers hope to conduct

Reports

“Ecosystem services and biodiversity preservation in prairie suburban areas” continued

further experiments where they will separate the levels of information to see which (if any) are more effective in increasing willingness to pay. The results of that research will be very helpful for municipalities which are designing policies to induce homeowners to make the change away from lawns and to more sustainable, and climate-friendly, options.

In another survey, the researchers asked a group of homeowners what preferences they had for municipal policies that would encourage them to convert to native pollinator gardens. The vast majority (86%) said that they preferred incentives to be given, 8% supported having a fee charged to properties that did not adopt native pollinator gardens, while 5% supported having these practices enshrined in bylaw. It seems the carrot is much preferred to the stick in this regard.

The webinar concluded with a discussion of the benefits of natural greenery in cities, in the following respects:

- Controlling surface temperature;
- Reducing particulate matter;
- Improving residents’ well-being;
- Helping cities adapt to climate change (future water scarcity, heat waves, health impacts).

They also pointed out the increasing public interest in supporting pollinators in urban areas, and that there are “opportunities for municipalities to get involved and promote the adoption of native pollinator gardens.” Music to our ears!

If you’re interested in viewing the presentation in its entirety, you can find it on the PCAP YouTube channel: [Ecosystem services and biodiversity preservation in Prairie suburban areas](#)

“Native Plants for Native Lawns”, presented by Ash Burkowski

By Susan Neuman

Report on Living Prairie Museum’s online webinar,
March 12, 2024

I was expecting this seminar to provide suggestions for how to remake your non-native lawn into something that was similar in appearance to a lawn but using native species of grasses/ sedges (and perhaps low-growing native wildflowers) that would be mown at regular (if infrequent) intervals. I was mistaken. Instead, we were presented with suggestions for low and medium-sized wildflowers which could be planted in a garden bed that would effectively replace a stretch of lawn. It was not what I was expecting, but the presentation was still informative and many of the suggested species also grow in our geographic area, although the Living Prairie Museum is located in Manitoba.

The presenter covered the basics of how to transition from lawn to garden bed through one of three methods: smothering, mechanical removal, or herbicide application. Knowledge of the characteristics of the site, in terms of soil type, moisture level, and exposure to sunlight, were also discussed as a prerequisite for plant selection.

Perhaps the most interesting aspect of the lecture was a discussion of why “naturalized” lawns, made up of dandelions, white clover, and other non-native (possibly invasive) species, are gaining in popularity. The presenter argued that they are a misguided attempt at providing food for pollinators, and that yards made up of a diverse selection of native species are most assuredly the better option. The presenter also provided a long list of references and resources on how to convert your lawn to a native pollinator garden.

Books and Publications

As the new season begins, we have two new reference botany books to offer our readers, with reviews to follow

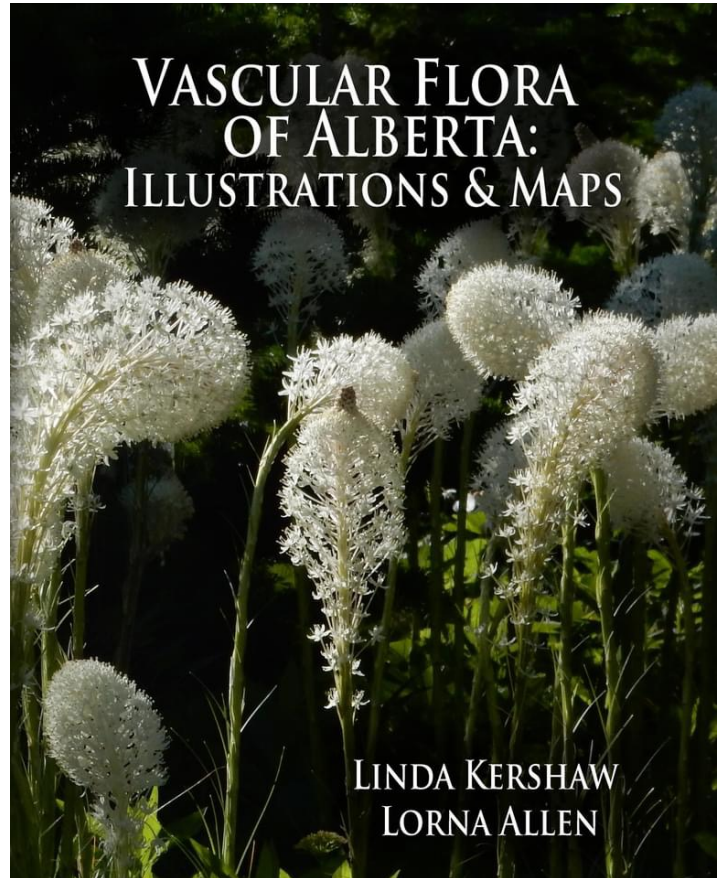
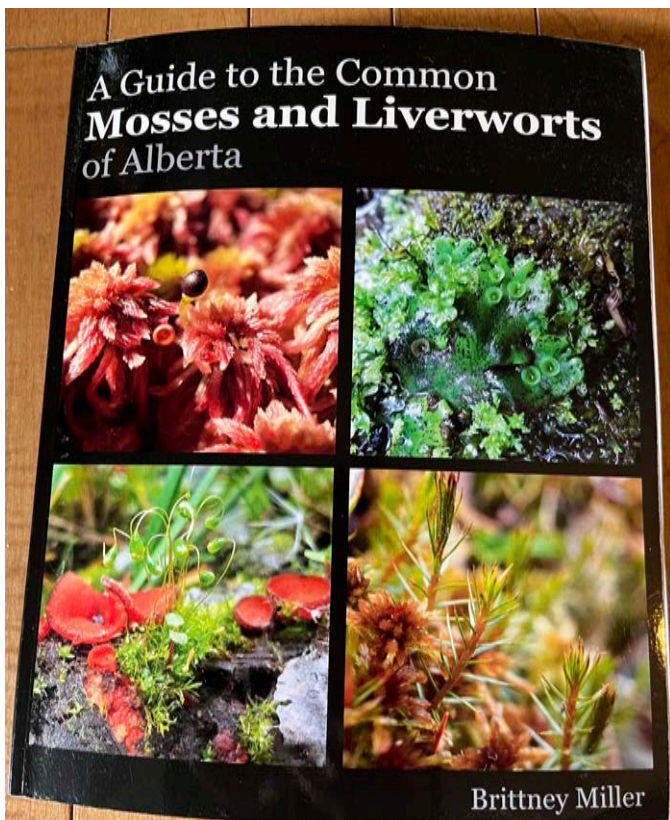
New Moss and Liverwort Guide

Local botanist Brittney Miller has just published a reference work to 170 common mosses and liverworts of Alberta. It is available both as a soft cover book and a pdf version usable on any device.

In the book, following the keys, each species receives a two-page treatment including a point-form description, distribution map, colour photo and drawings in colour. For more details, including how to purchase, check out the link:

[https://tinyurl.com/
CommonBryophytesofAlberta](https://tinyurl.com/CommonBryophytesofAlberta)

If you have ever fancied “getting into” bryophytes, now is your opportunity!



New Companion to Vascular Flora of Alberta: An Illustrated Guide

Renowned Alberta botanists Linda Kershaw and Lorna Allen have just come out with a new book: *Vascular Flora of Alberta: Illustrations and Maps*.

This nearly 650-page tome can stand on its own, but was designed as a companion book to *Vascular Flora of Alberta: An Illustrated Guide*. “It includes larger, often more detailed drawings for each species, along with distribution maps and additional information” that the authors were unable to include in the original book. Both of these books, in paperback and e-book format, can be purchased on [Amazon.ca](https://www.amazon.ca).

Articles

Weeds and Disturbance ... the Cons and Pros Part II

By Patsy Cotterill

This is the conclusion of the article begun in the March WN issue.

Volunteers and Weeds

When land trusts and stewards use volunteers in weed pulls, the theory is that annuals are removed and perennials (such as Canada thistle and tansy) will eventually die from starvation after repeated pulling of their shoots, as per Weaner's thesis. However, little monitoring is done to determine how effective this method is, and casual observation suggests that it has only a marginal effect in keeping perennial weed populations in check. Volunteers can use herbicide under the

supervision of a licensed herbicide applicator, but popular fear and dislike of herbicides means that this is not a common practice. The upshot is that many natural areas, at least those that have been subject to significant anthropogenic disturbance, are hybrid ecosystems with significant populations of non-native weeds. Indeed, the ubiquitous non-native smooth brome grass, introduced in the early twentieth century for forage, and an aggressive usurper of native grassland species and ground cover in young aspen forests, is not even considered a weed but rather a naturalized species. For people who do not distinguish between weeds and native species, of course, a problem does not exist, and even among ecologists naturalized species may well be tolerated and accepted. But if the objective is to

maintain native vegetation in more or less natural composition and function, ecological weeds, particularly the persistent, invasive ones, are indeed a problem.

It is important for the public to participate in land management and stewardship, both from the point of view of maintaining the conservation ethic and support for conservation funding, and of human health. Certainly, volunteers can maintain small areas such as community landscapes, school yards, and demonstration plots. But the question must be asked: are volunteers really that useful in natural areas and reserves? If herbicide isn't deployed by a professional spraying company with the appropriate equipment, weeds can be difficult to control on a large scale. Forest



An example of good disturbance. Past fire in Opal Natural Area creates bare sand which is readily colonized by plants adapted to growing in it, such as these patches of sand heather (*Hudsonia tomentosa*). Jack pine forest is also renewing itself following the fire. 2022-08-25. Photo: P. Cotterill.

Weeds and Disturbance ... the Cons and Pros Part II (cont)

maintenance requires specialized equipment and training and even trails can demand more than a simple weedwhacker to maintain. Some volunteers have become disillusioned with the results of their efforts and have moved on to more rewarding tasks. Even a group of volunteers dedicated to a particular site in the long term can struggle to find successors. One role for stewards could be monitoring and then relaying ecological information to the land managers in charge. Professionals, however, will need to do the major management work, and for this adequate budgets will be needed.



Large-scale Disturbance

Nature supplies plenty of disturbance events on a much larger, landscape-scale, which keep natural ecosystems dynamic and changing, although often within certain parameters in which an ecosystem remains reasonably stable or resilient. Flood, drought, fire, wind, ice, senescence, disease, predation, all produce changes in vegetal composition. It is well-known that grasslands are maintained by grazing and burning and that forest regeneration is stimulated by fire. In recent years the role of Indigenous burning and planting, and other landscape-modifying activities, in shaping natural ecosystems has come to be increasingly recognized. Following European settlement and

Patch of open area in Terwillegar Park herbicided to remove the weedy herb field scabious (*Knautia arvensis*). The original disturbance here was a gravel pit; the immediate one is herbiciding. Visible are leaf rosettes of field scabious, with tufts of smooth brome grass in the foreground. Herbiciding will have to be repeated, followed by planting or sowing of seed, if field scabious and smooth brome are not to recolonize. Suckers of balsam poplar are evident in the picture and over many decades a floodplain forest of balsam poplar would likely return, but with a mixed understory of natives and non-natives. If heat and drought are prevalent in subsequent years, the forest may be of aspen, or of scrub.

What to do? After further cultivation the City of Edmonton could try sowing, at considerable expense, with native grass, or at less expense with readily available but not necessarily desirable Kentucky bluegrass. Could either outcompete the brome? The City could burn, and thus encourage rapid reforestation, but that isn't likely a desired outcome. Other solutions are possible, but would take time and money.

2018-08-02. Photo: P. Cotterill.

widespread agriculture, both human-caused disturbance and lack of it have become major causes of a pervasive loss of natural ecosystems and their diverse inhabitants.

Weeds and Disturbance ... the Cons and Pros Part II (cont)

Replacing Natural Disturbance

Where natural disturbance forces are excluded, they may need to be supplied artificially in a natural ecosystem, such as the introduction of prescribed burns and controlled grazing. Unfortunately, the need for disturbance is not always well recognized, either by professionals in charge of land trusts and reserves, or amateurs serving as volunteer stewards in provincial or natural areas. The mindset is preservation, with only “natural” change being

permissible, even though natural disturbances may be being excluded (fire, for example) for safety reasons. Intervention is frowned upon even when the trajectory is towards degradation of the natural area through lack of renewal. This “no intervention” policy is manifest also in the current popular aversion to herbicide use. However, it should not be allowed to restrict ecological restoration where its use is indicated by sound science. Admittedly, economics may be a constraining factor in undertaking extensive intervention, as land management is costly.

Medium-scale disturbance

Artificial disturbances, such as clearing the ground by whatever means – mechanical or chemical – whether for restoration or outline maintenance, for example, have different effects depending on where they take place. If the disturbance occurs within a natural community, such as a prairie, regeneration will likely be with native species. Germination will take place from a native seed bank, although colonization by native species that possess rhizomes will likely be faster and more prominent. In an area disturbed or previously disturbed by human agency, it will be colonized by non-native species (weeds). When the powerline at Fort Saskatchewan Prairie was cleared to bare soil for the installation of new pylons, both native grassland pioneers, such as prairie sage and spreading



Field at NW 384, one of the City of Edmonton’s Natural Areas in the southwest sector, showing an area that is part of the Devon Sand Dune. Cultivated since the last century, the City has not touched this field or anywhere else since it purchased the site in 2001. It is now a field of common tansy and smooth brome. It may be too dry to recolonize with aspen. It requires cultivation and planting or sowing. Botanists have suggested it be planted with jack pine, a natural denizen of sandy soils and occurring close by. Perhaps the City can obtain federal tree funding to accomplish this? 2023-04-07. Photo: P. Cotterill.

Articles

Weeds and Disturbance ... the Cons and Pros Part II (cont)

dogbane, quickly came back, along with non-native smooth brome. The rhizomatous shrubs beaked hazelnut and chokecherry quickly extended their range to form major thickets. Removal of established vegetation often results in the release of vegetation that has been suppressed by its presence, a well-known phenomenon in forests where the death of a mature tree allows saplings to access sufficient resources to grow. At the Prairie the shrubs will persist (until their next scalping) but the herbaceous composition is changing as succession proceeds. In inherently unstable communities, such as shifting or eroding sand dunes, differing degrees of disturbance, creating bare or sparsely vegetated areas, favour some species over others, resulting in a more diverse plant community overall.

Disturbance: both good and bad

Weaner concludes his article with the question: is disturbance good or bad, and answers: it depends. Exactly. Disturbance can be both good and bad, both ecologically and from the human point of view, depending on the circumstances and the desired outcome. Neither gardeners nor land managers should shy away from creating disturbance and intervention, although directing and predicting the outcome may be difficult. It is important to remember that ecosystems are dynamic, and humans influence but do not fully control them.

In restoration, which is costly to do, ignorance of ecology can be expensive. At Glenbow Provincial Park near Calgary, a former ranch, the upper slopes are native grassland while the lower-lying

areas, used for pasture, consist of non-native grass. In an attempt to restore native species, one large field had been cultivated and sown with a native grass seed mix but it was bare: the seed had all been eaten by the local wild rodent population! This lack of understanding of the extant ecosystem resulted in a costly mistake; at the time of my visit the field was being used only to store machinery!

Flexibility, adaptability, and budget!

My conclusion is that land managers need to keep an open mind with regard to disturbance and management, and although the learning is long-term, to let nature be the teacher. Learn by experience. Be aware of the process of succession, and plant-community structure. Do not assume that native plants grow better and faster than weeds, as we initially naively did at Fort Saskatchewan Prairie!

My other suggestion is that land managers become big advocates for their discipline so as to attract bigger budgets. Let no-one assume that leaving it to nature is the cheap way out!



Receding shorelines are natural disturbances that create muddy shores ideal for this species to inhabit. Nodding beggarticks (*Bidens cernua*) on Antler Lake Isle, Cooking Lake. Photo: K. McDonald.

Articles

Seeing red... again...

By Patsy Cotterill

In mid-March, while driving in the hills and hollows of Strathcona County, a legacy of the last Ice Age, I was struck by the brilliant crimson-red of the native willows in the lower-lying areas, and the flaring yellow of the tall, cultivated willows planted in the acreages. All welcome signs of spring!

I was reminded that this brilliance is biochemical, due to the ramping up, by the plant, of production of plant pigments, particularly anthocyanins and carotenoids, in the stems and branchlets. This phenomenon is known to occur in spring under conditions of high light intensity and cold temperatures which puts the plants under stress.

Anthocyanins are complex organic molecules consisting of carbon, hydrogen and oxygen with a sugar molecule attached, and are water soluble in the cell sap. They act as antioxidants, scavenging dangerous oxygen species (ions, molecules, free radicals) that are created during photosynthesis and could damage the plant's DNA and disrupt its metabolic processes.

Anthocyanin as a solute also lowers the freezing point of cell sap, and retains water in the cell, important when soil water is frozen and unavailable and the plant is subject to drought. Cells containing anthocyanins reflect red wavelengths, with the acidity of the cell sap also influencing the exact colour that is visible.

Carotenoids are also natural pigments that give colour to plant parts, chiefly in yellow, orange and red hues, and work in conjunction with anthocyanins.

Chinese researchers (see reference), analyzing willow species with horticultural value because of their coloured stems, determined that the colour of willows with purple barks is likely conferred by the interaction of a carotenoid and an anthocyanin, with the carotenoid as the major factor. Red colour in stems was due to anthocyanin accumulation



Crimson red willows in wetland, Strathcona County, 2024-03-31. Photo: P. Cotterill.

Articles

Seeing red... again... (cont)



Cultivated willow showing yellow colour of new growth, Strathcona County, 2024-03-31. Photo: P. Cotterill.

barks were the result of the maintenance of chlorophyll synthesis.

Hence I'm guessing that most of our crimson-purple willows contain both carotenoid and anthocyanin while the yellow cultivated willows are chock full of carotenoid.

Many other species besides willows use these same pigments, of course, as can also be seen readily at this time of year. The finer branches of our birches are crimson, and young, healthy red-osier dogwood stems look particularly red (a good time to distinguish them from the old, grey stems that can be pruned out in the garden?). Even the young shoots of roses look red beneath their cladding of prickles that always reminds me of men's hairy legs!

Aren't we lucky that our trees and shrubs use sunscreen, which enlivens the bush and raises our spirits in anticipation of spring?

Notes:

Be sure to watch for the unfurling of young, tender willow leaves in April. They too use anthocyanins and carotenoids for protection.

For those with a taste for complex biochemistry and genomics, try sampling this reference: Zhou et al. Different colour regulation mechanism in willow barks determined using integrated metabolomics and transcriptomics analyses. *BMC Plant Biol* (2022) 22-530. <https://link.springer.com/article/10.1186/s12870-022-03909-x>

alone, along with chlorophyll degradation. Green

Plant Profile

Canada buffaloberry

By Patsy Cotterill

Canada buffaloberry, aka soapberry or soopolallie (*Shepherdia canadensis*), is a medium-sized shrub common throughout Alberta and also across Canada, as its name suggests. Most parts of the plant are covered in a pubescence not of hairs but of flat, star-like, silvery or rusty-brown scales. These are well developed on the undersides of the opposite, ovate leaves, which are pale and silvery in contrast to the bright green uppersides. When the leaves first emerge from the bud they are characteristically cupped like a pair of praying hands. Canada buffaloberry is most frequently found in woods and along shores; it is common in Edmonton's river valley.

The flower buds form during the growing season and spend the winter in small, tight, globular



Male flowers on Edmonton garden shrub, 2023-05-04.
Photo: P. Cotterill.



Female flowers in late flowering stage, stigmas still protruding, on Edmonton garden shrub, 2023-05-04. Photo: P. Cotterill.

clusters hugging the twigs, another characteristic feature. The flowers are small and yellow, with male and female flowers separate and borne on different plants. They bloom in April, making Canada buffaloberry among our earliest shrubs to flower and a welcome harbinger of spring. Both flower genders have four spreading sepals. The males are about 4 mm wide, with eight stamens projecting from between the lobes of a cap-like disc; the females are even smaller, with the stigma protruding beyond an eight-lobed disc that lies atop a tube enclosing a superior ovary. Both tube and ovary develop into the berry-like fruit, red in colour, dotted with scales, and containing a single, hard, black seed that ripens in June.

Plant Profile

Canada buffaloberry

Canada buffaloberry shares the Oleaster family (Elaeagnaceae) with a number of other local species, all with some form of covering by scales. Wolf-willow (aka silverberry, *Elaeagnus commutata*; native), Russian olive (a tree, non-native), and sea-buckthorn (non-native) are all silvery-grey. Thorny buffaloberry (*Shepherdia argentea*), Canada buffaloberry's closest relative, is silvery-grey and also thorny, making it easily distinguishable from its congener. It is planted in Edmonton, e.g., in Terwillegar Park, but is only native towards the drier southeast of the province, where it often forms thickets.

Indigenous peoples relish the fruit of Canada buffaloberry as a dessert, whipping it up into a



Garden shrub, 2023-06-09. Photo: P. Cotterill.



Female plant with ripe fruits and new growth. Whitehorse Creek, Whitehorse Wildland Park, 2023-07-16. Photo: P. Cotterill.

froth caused by its saponin content, but it is scarcely palatable without sugar.

For the native garden with a reasonable amount of room, Canada buffaloberry is a good choice of shrub. Growing not more than 3 m high and 2-3 m wide, it achieves a nice, rounded shape. It is early to bloom, a boon for early pollinators, and does not seem susceptible to disease (perhaps the scales protect against disease-carrying insects). If you are lucky enough to include a female plant, the luminescent red berries in summer provide extra appeal, although they do not last long.

ENPS has grown Canada buffaloberry from seed, although germination is not necessarily instantaneous or reliable. The shrub will also self-seed in the garden. If any reader would like to try growing it, I'd be happy to supply seed!